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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,798	11/04/2003	Yoshiaki Miyake	Q78285	9394
23373	7590	10/20/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			ALIE, GHASSEM	
			ART UNIT	PAPER NUMBER
			3724	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/699,798

Applicant(s)

MIYAKE ET AL.

Examiner

Ghassem Alie

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

*Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Regarding claim 16, the disclosure fails to teach that the blade extends in the direction that is substantially parallel to a cutting edge of the blade. In fact, the blade moves in a downward direction which is substantially perpendicular to the cutting edge of the blade. See Figs. 1A-1B in the drawings.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 15, “the longitudinal direction” lack antecedent basis. In addition, the preamble is a run on sentence and it is not clear what refers to what. For example, it is not clear whether “in a lateral direction approximately orthogonal to the longitudinal direction” refers to the direction of the wefts over the wraps or the direction of the cutting machine during the cutting of the napped cloth. Regarding claim 16, “wherein the direction wherein the blade of the cutter extends is substantially parallel to a cutting edge of the blade” is confusing. It is not clear how the downward movement of the blade is

substantially parallel to the cutting edge of the blade. In fact, the blade moves in a downward direction which is substantially perpendicular to the cutting edge of the blade. See Figs. 1A-1B in the drawings.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4, 5, and 7-13, 15, and 16, are rejected under 35 U.S.C. 102(b) as being anticipated by Warthen et al. (5,979,278), hereinafter Warthen. Regarding claims 1 and 15, as best understood, Warthen teaches a cutting mechanism 30 or 230 for napped cloth 31 to cut a napped cloth having a single napped surface 32. The fabric 31 has a base portion 33 and a pile portion 32, which defines a napped surface. Warthen also teaches a cutting means for cutting napped cloth 31 by advancing a cutter 36 or 236 through the napped surface 32. See Figs. 1-17 and col. 4, lines 7-67 and col. 7 and 7, lines 1-67 in Warthen. It should be noted that the cutting means 30 or 230 is capable of cutting the napped cloth in a lateral direction approximately orthogonal direction. Warthen also teaches that the cutting means 30 or 230 cuts the napped cloth 31 by moving the cutter 36 or 236 so that both  $V_y$ , a component of velocity in a direction wherein the blade extends, and  $V_x$ , a component of velocity in a direction wherein the blade of the cutter 36 or 236 extends become larger than zero. The  $V_y$  is defined by the up and down movement of the blade 36 or 236 by the cylinder 35 or 297. See Figs. 1-18 in Warthen. It should also be noted that cutting means 36 and 236 are slanted

or are diagonal same as cutting means 20 of the instant application. See Fig. 11 in Warthen and Fig. 1B of the instant application. Cutting means 36, 236 moves downward with a velocity V. Velocity V can be resolved into two components in X-Y reference coordinate axes same as the instant application.

Regarding claim 4 and 5, Warthen teaches everything noted above including a fastener means to sandwich and fasten the napped cloth 31 from both sides thereof during cutting of the napped cloth. The securing mechanism 291 and the plate and the base, which supports the napped cloth 31, define the fastener means. The napped cloth 31 is sandwich between the securing mechanism 291 and the base plate. See Figs. 1-18 in Warthen.

Regarding claims 7-13, Warthen teaches everything noted above including that the napped cloth is a light shielding cloth of a cassette for housing a photographic roll film. It should be noted that Warthen's cutting device is capable of cutting a light shielding cloth of a cassette for housing a photographic roll film.

Regarding claim 16, as best understood, Bellegante teaches everything noted above including that the direction wherein the blade of the cutter extends is substantially parallel to a cutting of the blade.

7. Claims 1, 3, 7-9, 13, 14, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Bellegante (5,261,164). Regarding claims 1 and 15, as best understood, Bellegante teaches a cutting machine capable of cutting napped cloth having a single napped surface. Bellegante also teaches that a cutting means 10 for cutting napped cloth by advancing a cutter 30 through the napped surface. Cutter 30 is capable of cutting a napped cloth and advancing through a napped surface. See Figs. 1-3 and col. 3, lines 10-55. It should

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be noted that the cutting means 30 is capable of cutting the napped cloth in a lateral direction approximately orthogonal direction. Bellegante also teaches that cutting means 10 cuts the napped cloth by moving cutter 30 so that both  $V_y$ , a component of velocity in a direction wherein the blade extends, and  $V_x$ , a component of velocity in a direction wherein the blade of the cutter extends become larger than zero. The cutter means is capable of being moved by the cutting means 10 via a person or user in a diagonal direction that has a velocity  $V_x$  and velocity  $V_y$  coordinates.  $V_x$  in a direction orthogonal to the that the cutter 30 extends  $V_y$  becomes larger than zero while cutter 30 that is held in orthogonal direction cuts the napped cloth.

Regarding claim 3, Bellegante teaches everything noted above including that  $V_x/V_y$  a ratio of the component of velocity  $V_x$  to the component of velocity  $V_y$  stratifies  $0.5 < V_x/V_y < 2.0$ . The cutter is capable of cutting the napped cloth in a manner that its velocity coordinates satisfy  $0.5 < V_x/V_y < 2.0$  ratio.

Regarding claims 7-9, Bellegante teaches everything noted above including that the napped cloth is a light shielding cloth of a cassette for housing a photographic roll film. It should be noted that Bellegante's cutting device is capable of cutting a light shielding cloth of a cassette for housing a photographic roll film.

Regarding claims 13 and 14, Bellegante teaches everything noted above including that the napped cloth is cut apart. Bellegante also teaches that the cutting means 10 cuts the napped cloth from one side of the napped cloth through to another side of the napped cloth.

Regarding claim 16, as best understood, Bellegante teaches everything noted above including that the direction wherein the blade of the cutter extends is substantially parallel to a cutting of the blade.

8. Claims 1, 7, 8, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schneider et al. (4,793,033), hereinafter Schneider. Regarding claims 1 and 15, as best understood, Schneider teaches a cutting mechanism for napped cloth 12 to cut a napped cloth having a single napped surface. Schneider also teaches a cutting means 150 for cutting napped cloth 12 by advising a cutter 18 through the napped surface. The blade 18 is advanced through the napped surface in x, y, and z directions. See Figs. 1 and 2 and col. 3, lines 23-68 and col. 4, lines 1-55 in Schneider. It should be noted that the cutting means 150 is capable of cutting the napped cloth in a lateral direction approximately orthogonal direction. Schneider also teaches that the cutting means 15 cuts the napped cloth 12 by moving the cutter 18 so that both  $V_y$ , a component of velocity in a direction wherein the blade extends, and  $V_x$ , a component of velocity in a direction wherein the blade of the cutter 18 extends become larger than zero. The cutting means 15 advances in x, y, and z directions and inherently has  $V_x$ ,  $V_y$ , and  $V_z$  components. See Figs. 1 and 2 in Schneider.

Regarding claims 7 and 8, Schneider teaches everything noted above including that the napped cloth is a light shielding cloth of a cassette for housing a photographic roll film. It should be noted that Schneider's cutting device is capable of cutting a light shielding cloth of a cassette for housing a photographic roll film.

Regarding claim 16, as best understood, Schneider teaches everything noted above including that the direction wherein the blade of the cutter extends is substantially parallel to a cutting of the blade.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3 and 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Warthen. Regarding claim 1, Warthen teaches everything noted above except that the  $V_x/V_y$ , a ratio of the component of velocity  $V_x$  to the component of velocity  $V_y$  satisfied the condition  $0.5 < V_x/V_y < 2.0$ . However,  $V_x/V_y$  ratio can be set up as is desired and according to the best cutting performance or result for the particular material to be cut. In addition, It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the ratio  $V_x/V_y$  ratio between 0.5 to 2.0, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 6, Warthen teaches everything noted above including a fastener means to sandwich and fasten the napped cloth 31 from both sides thereof during cutting of the napped cloth. The securing mechanism 291 and the plate and the base, which supports the napped cloth 31, define the fastener means. The napped cloth 31 is sandwich between the securing mechanism 291 and the base plate. See Figs. 1-18 in Warthen.



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11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider.

Regarding claim 1, Schneider teaches everything noted above except that the  $V_x/V_y$ , a ratio of the component of velocity  $V_x$  to the component of velocity  $V_y$  satisfied the condition  $0.5 < V_x/V_y < 2.0$ . However,  $V_x/V_y$  ratio can be set up as is desired and according to the best cutting performance or result for the particular material to be cut. In addition, It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the ratio  $V_x/V_y$  ratio between 0.5 to 2.0, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Furthermore, Schneider's cutter 18 can be programmed to move in x or y directions as desired.

***Response to Amendment***

12. Applicant's arguments filed on 12/22/04 have been fully considered but they are not persuasive.

Applicant's argument that Warthen, Bellegante, or Schneider does not teach that the cutter cuts a napped cloth is not persuasive. Cutters in Warthen, Brocklehurst, and Schneider are capable of cutting a napped cloth. Claims do not set forth the structural detail of the cutter in the instant invention. For example, claim 1, merely recites, "a cutting means for cutting the napped cloth by advancing a cutter through the napped surface". The cutters in Warthen, Schneider, and Bellegante are capable of cutting a napped cloth. Therefore, cutters in Warthen, Schneider, or Bellegante satisfy the structural limitations of the cutter as set forth in claim 1. It should be noted that an apparatus for cutting napped cloth has been claimed not a

method of cutting napped cloth. Therefore, any apparatus that is capable of cutting napped cloth reads on the claims in the instant application, particularly claims 1 and 15.

Applicant's argument that Schneider does not teach that the napped cloth or the carpet itself is cut is not persuasive. Schneider teaches that the pile of the carpet is cut. Therefore, since the pile of the carpet is part of the cart, the cutter also cuts the carpet itself. Regarding claim, Applicant's argument that Warthen does not teach that the cutting blade moves in the lengthwise direction is not persuasive. Claim 2 does not require that the cutter move in the lengthwise direction. Cutter 36 in Warthen moves downward and is capable of moving downwardly with acute angle with respect to a vertical plane. Actuator 56 adjusts the angle of the blade with respect to the vertical plane. Cutter 36 cuts the napped cloth by moving with a certain velocity downwardly. Therefore, the downward velocity of cutter 36 has two  $V_x$  and  $V_y$  coordinates since cutter 36 moves downwardly at an angle with respect to the vertical plane. It would have been obvious to a person of ordinary skill in the art to adjusted the velocity of the blades and velocity coordinates  $V_x$ ,  $V_y$  in a manner that a clean cut of the napped cloth can be performed by the cutter.

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kutchmark (6,782,788), Geber (3,747,454), Galan et al. (6,164,177), and Warner et al. (5,077,901), Squires (4,646,439), Ojea (5,815,929), Arbter (4,034,634), Ziegler (4,493,234), Figueroa (4,606,124), Sullivan (4,148,142), Donovan (4,505,039), Brown (4,635,362), and Keeton (3,213,736) teach a cutting machine capable of cutting napped cloth.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (too-free).

GA/ga

October 17, 2005



KENNETH E. PETERSON  
PRIMARY EXAMINER